Ohio Farm Household
Longitudinal Study*

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Sources of Income and Allocations of Expenses on Ohio Farms

In 1993, the Ohio Farm Household Longitudinal Study continued to monitor the financial performance, financial condition, and farming practices of a panel of cooperating Ohio farm households. The study began in 1987, and comparisons from telephone interviews in 1987 and 1993 show substantial improvement in farm household income and reduction in financial stress. This report, the second of a series highlighting 1993 findings of the study, summarizes sources of income and the distribution of expenses for farm businesses.

As in previous reports, farm households in the study are grouped by the size of their farming operation. Farm operators with small farming operations (less than $40,000 annual gross sales) typically work off the farm, devote little time to the farming operation, and earn low rates of return for the labor and capital used on the farm. The second group includes households with modest farming operations having $40,000 to $99,000 in annual gross sales. These tend to be part-time operations with more financial stake in farming than the first group, but also earning low rates of return, with the household needing financial assistance from nonfarm jobs. These two groups comprise nearly 85 percent of all farm households in Ohio, but they account for less than 35 percent of the economic activity in Ohio farming. Those in the third group ($100,000 and more in annual gross sales) tend to be full-time farmers, with a substantial financial investment. They account for two-thirds of all farm output, and earn rates of return that are comparable with those from off-farm investments.

Sources of Farm Income

Livestock - For farm households in the smallest size group (less than $40,000 gross sales), livestock sales account for only 14 percent of gross income (Table 1). Despite the large number of these small farming operations, these households are not representative of commercial farming operations in Ohio because their farm output is low and their dependence on nonfarm income is high (see Table 1). Livestock income tends to be highest on larger, full-time farms because labor demands are intensive and constant. On commercial farming operations (annual sales exceeding $100,000), dairy, hogs, and beef accounted for 38 percent of gross farm income in 1992; on average, livestock sales comprised 30 cents of every dollar of gross farm income.

Crops - Major Ohio crops include corn, soybeans, and wheat, and these are the most important source of income for Ohio farm operations, regardless of farm size. They accounted in 1992 for about 40 percent of income for the median Ohio farm household and for the average dollar of income. There was not much variation by farm size.

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Non-cash Income - Farm households receive non-cash income that are included in these income sources. The two main categories are the value of products raised on the farm but consumed at home, and the imputed rental value of operator (and hired laborer) farm dwellings. USDA estimates of non-cash income by farm sales class have been included as income for each household in the study. The average non-cash income was $6,600 per household in 1992. For the farm households with less than $40,000 gross sales, these income sources are significant, accounting for about one-third of all gross farm income. For commercial farms, it is a relatively minor 3.5 percent of gross income.

Government Payments accounted for 4 percent of gross farm income, and this proportion was nearly the same for each of the three groups. Over the course of this study, government transfer payments have declined. In 1986, about 8 percent of gross farm income was attributable to government payments.

Allocation of Expenses

Farm expenses in 1992 totalled 82 cents for every dollar of farm sales (Table 2). The remaining 18 cents was a residual return to pay for 'owned resources', which include unpaid family and operator labor, management, and equity capital. Farms in the smallest size group (less than $40,000 gross sales) were, on the average, unprofitable, having spent $1.19 for every dollar of sales. But many households in this group do not regard profitable farming as central to their reasons for country living. They tend to treat the rural environment as a consumer good rather than an economic resource that must be profitably employed, and regard farming less as business than as lifestyle.

Farming operations are becoming more specialized, more capital and energy intensive. Specialization results when farmers identify and pursue a few activities which best fit their personal circumstances. For the current generation of Cornbelt farmers, specialization in corn and soybeans has replaced diversified crop and livestock farming. Fencerows have been torn out, wood lots cleared, drainage improvements made, expensive but specialized equipment purchased, and old farmsteads demolished as farmers responded to changing circumstances. Successful dairy and hog farmers have become more specialized in order to better utilize sophisticated breeding, housing, and feeding technologies on a scale large enough to justify the sophistication.

The largest single expense item (17 percent) for farms of all size categories is fertilizer and chemicals (Table 2). Feed expenses (13 percent) are another major item. Fifty years ago, these expenses would have been negligible; farming systems then were more self-sufficient and much less dependent on purchased inputs.

The proportion of farm expenses allocated in 1992 to depreciation, interest, cash rent, and property taxes testify to the capital intensity of modern farming. Farming is now one of the nation's most capital intensive industries, with over a quarter million dollars invested annually per full-time worker. Over the six-year period of this study, the proportion of expenses attributable to this category has fallen from 38 percent to 30 percent, but this decline has been due almost entirely to falling interest rates. This percentage is nearly the same for all three categories of farms, although the similarity masks some important

differences in the use of capital related to farm size. Smaller farms have relatively high depreciation expenses, reflecting their inability to capture economies of scale. Larger farms have a high proportion of expenses allocated to interest, reflecting their larger use of debt financing. Smaller farms pay less cash rent and have higher property tax percentages, reflecting the fact that larger farms tend to rent a higher proportion of their real estate than do smaller farms.

Concluding Comments

Examining gross farm income sources and operating expenses by farm size yields useful insights into Ohio farming operations. Grain sales are important to Ohio farms regardless of farm size; livestock is much less important on small farms than larger ones; the imputed value of the farm residence and home consumption is a substantial proportion of income on smaller farms; and government transfer payments are a relatively small proportion of income on all farms. Farm expenses reflect historic changes in farming, systems that are specialized, capital intensive, and dependent on purchased inputs for pest control, plant nutrition, and livestock feed.

Some sources of income and expenses are omitted in this summary. Many farm households (and especially rural residents with small farming operations) enjoy some nonmonetary satisfactions from their lifestyle choice, for example. Also, important costs associated with owned resources have been excluded from the analysis of expenses: the costs of unpaid family resources like labor and management are examples. Finally, farming operations cause some public costs that are excluded here, like sedimentation or chemical contamination.

Table 1: **Gross Income from Farming and Percentage Distribution of Income from Sales and Government Payments per Farm Operator Household, by Farm Size, 1992.**

	1992 Gross Sales			
	< 40,000	40,000 - 99,999	> 100,000	Average[1]
Gross Farm Income ($000)	17.4	76.7	244.7	57.8
Net Farm Income ($000)	4.4	22.4	76.7	17.1
Proportion of Gross Income from:	- - - - - - - - - - Percent - - - - - - - - - -			
- Corn, Wheat, Soybeans	38.9	50.7	38.5	40.8
- Dairy, Hogs, Beef	14.0	25.8	37.7	30.5
- Other Crops and Livestock and Misc.[2]	6.1	12.0	16.4	13.4
- Imputed Rental Value of Residence and Home Consumption[3]	36.6	7.8	3.5	11.4
- Government Payments	4.4	3.7	3.9	3.9
	100.0	100.0	100.0	100.0

[1] Gross and net farm incomes are per household. Proportions of gross income from various sources are per dollar of sales.

[2] Includes inventory change and sales of other crops such as hay, orchard crops, other grains, other livestock, etc.

[3] Imputed value of residence and home consumption is from USDA estimates.

Table 2: Total Farm Expenses, Expenses per Sales Dollar, and Distribution of Farm Expenses, by Farm Size, 1992.

	1992 Gross Sales			
	< 40,000	40,000 - 99,999	> 100,000	Average[1]
Total Farm Expenses ($000)	13.1	54.4	168.6	40.7
Expenses per Sales Dollar[2]	1.19	0.77	0.71	.82
Proportion of Expenses for Income from:	- - - - - - - - - - Percent - - - - - - - - - -			
- Fertilizer & Chemicals	16.3	19.6	17.0	17.3
- Feed	8.3	12.2	14.1	12.5
- Seed	4.5	5.6	5.2	5.1
- Hired Labor	3.0	5.2	5.8	5.1
- Repairs, Fuel, Drying	16.1	14.0	11.8	13.1
- Purchased Feeder Livestock	1.4	1.8	3.5	2.7
- Depreciation	14.3	11.7	10.0	11.2
- Interest	6.8	6.1	8.4	7.7
- Cash Rent	3.5	8.3	10.2	8.4
- Taxes[3]	6.6	2.6	1.6	2.9
- Other[4]	19.2	12.9	12.4	14.0
	100.0	100.0	100.0	100.0

[1] Total farm expenses are per household. Proportions of expenses for various expense categories are per sales dollar.

[2] Expenses exclude unpaid family and operator labor and charge for equity capital. Sales excludes imputed value of residence.

[3] Includes only real estate taxes.

[4] Includes unallocated costs such as conservation expenses, professional services, insurance, utilities, custom work, veterinary and breeding fees, and miscellaneous expenses.

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